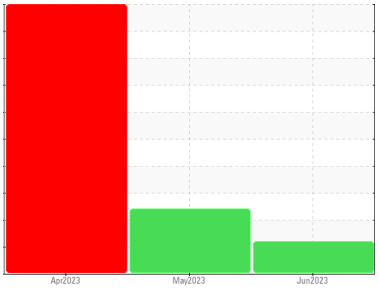
PROBLEM SUMMARY

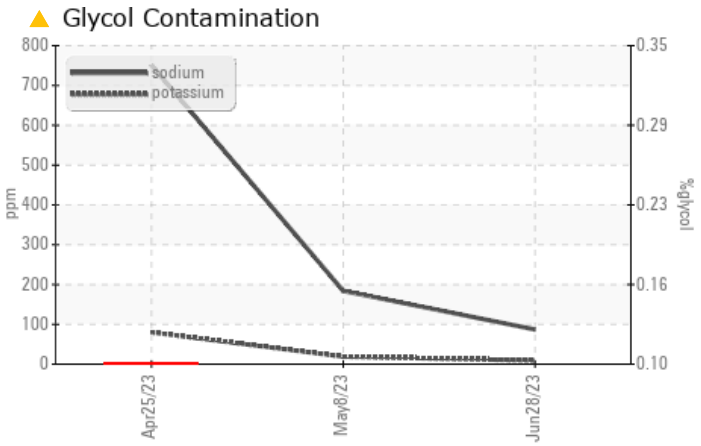
Sample Rating Trend



GLYCOL

Machine Id
526074
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

No corrective action is recommended at this time.
Resample at the next service interval to monitor. (
Customer Sample Comment: Engine oil resample)

PROBLEMATIC TEST RESULTS

Sample Status				ATTENTION	ABNORMAL	SEVERE
Sodium	ppm	ASTM D5185m		▲ 87	▲ 184	▲ 751

Customer Id: GFL411
Sample No.: GFL0076885
Lab Number: 05889616
Test Package: FLEET

To manage this report scan the QR code

To discuss the diagnosis or test data:
Jonathan Hester +1 919-379-4092 x4092
jhester@wearcheckusa.com

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

08 May 2023 Diag: Jonathan Hester

GLYCOL

We advise that you check for the source of the coolant leak. Check for low coolant level. We recommend an early resample to monitor this condition.All component wear rates are normal. Sodium and/or potassium levels remain high. The BN result indicates that there is suitable alkalinity remaining in the oil.

view report

25 Apr 2023 Diag: Don Baldridge

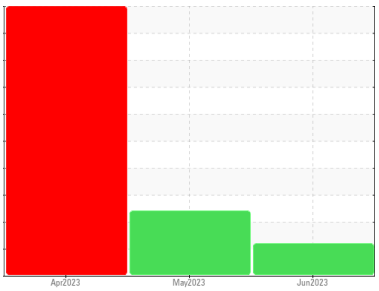
GLYCOL

We advise that you check for the source of the coolant leak. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.All component wear rates are normal. Sodium and/or potassium levels are high. Test for glycol is positive. Elemental level of silicon (Si) above normal. The oil is no longer serviceable due to the presence of contaminants.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



GLYCOL

Machine Id
526074
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

DIAGNOSIS

Recommendation
No corrective action is recommended at this time. Resample at the next service interval to monitor. (Customer Sample Comment: Engine oil resample)

Wear
All component wear rates are normal.

Contamination
Sodium and/or potassium levels remain high. Test for glycol is negative.

Fluid Condition
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORMATION		method	limit/base	current	history 1	history 2
Sample Number		Client Info		**GFL0076885**	GFL0076870	GFL0076872
Sample Date		Client Info		**28 Jun 2023**	08 May 2023	25 Apr 2023
Machine Age	hrs	Client Info		**3399**	3044	2964
Oil Age	hrs	Client Info		**435**	80	600
Oil Changed		Client Info		**Not Changd**	Not Changd	Changed
Sample Status				**ATTENTION**	ABNORMAL	SEVERE

CONTAMINATION		method	limit/base	current	history 1	history 2
Fuel		WC Method	>5	**<1.0**	<1.0	<1.0

WEAR METALS		method	limit/base	current	history 1	history 2
Iron	ppm	ASTM D5185m	>100	**11**	11	42
Chromium	ppm	ASTM D5185m	>20	**<1**	0	1
Nickel	ppm	ASTM D5185m	>4	**0**	0	0
Titanium	ppm	ASTM D5185m		**0**	<1	<1
Silver	ppm	ASTM D5185m	>3	**0**	0	0
Aluminum	ppm	ASTM D5185m	>20	**<1**	<1	3
Lead	ppm	ASTM D5185m	>40	**0**	<1	5
Copper	ppm	ASTM D5185m	>330	**<1**	<1	<1
Tin	ppm	ASTM D5185m	>15	**0**	<1	<1
Vanadium	ppm	ASTM D5185m		**<1**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

ADDITIVES		method	limit/base	current	history 1	history 2
Boron	ppm	ASTM D5185m	0	**5**	9	7
Barium	ppm	ASTM D5185m	0	**0**	0	0
Molybdenum	ppm	ASTM D5185m	60	**65**	72	128
Manganese	ppm	ASTM D5185m	0	**<1**	0	<1
Magnesium	ppm	ASTM D5185m	1010	**989**	931	995
Calcium	ppm	ASTM D5185m	1070	**1130**	1132	1238
Phosphorus	ppm	ASTM D5185m	1150	**1032**	1002	1007
Zinc	ppm	ASTM D5185m	1270	**1258**	1237	1344
Sulfur	ppm	ASTM D5185m	2060	**3965**	3657	3562

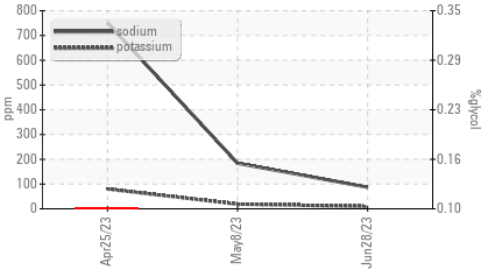
CONTAMINANTS		method	limit/base	current	history 1	history 2
Silicon	ppm	ASTM D5185m	>25	**5**	8	▲ 31
Sodium	ppm	ASTM D5185m		▲ **87**	▲ 184	▲ 751
Potassium	ppm	ASTM D5185m	>20	**9**	▲ 19	▲ 80
Glycol	%	*ASTM D2982		**NEG**	NEG	⬢ 0.10

INFRA-RED		method	limit/base	current	history 1	history 2
Soot %	%	*ASTM D7844	>3	**0.4**	0.2	0.7
Nitration	Abs/cm	*ASTM D7624	>20	**6.4**	6.4	10.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	**19.5**	19.3	21.7

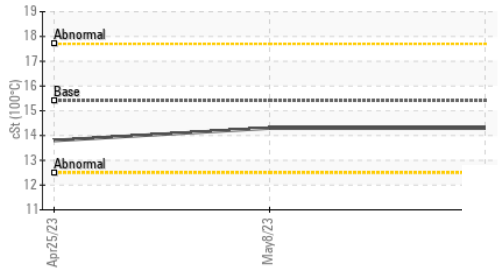
FLUID DEGRADATION		method	limit/base	current	history 1	history 2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**15.4**	14.1	16.5
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	**8.6**	9.0	6.1

OIL ANALYSIS REPORT

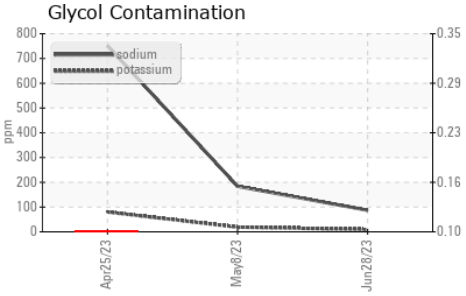
Glycol Contamination



Viscosity @ 100°C



Glycol Contamination

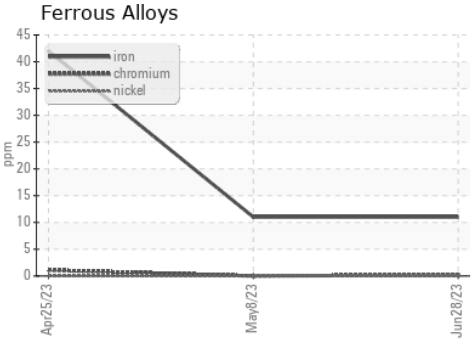


VISUAL		method	limit/base	current	history 1	history 2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

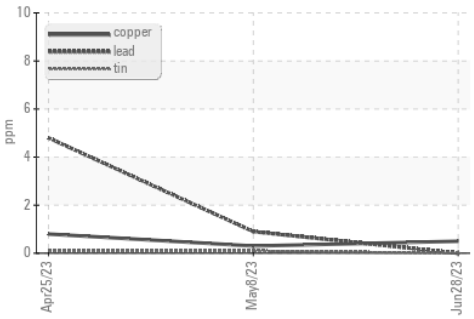
FLUID PROPERTIES		method	limit/base	current	history 1	history 2
Visc @ 100°C	cSt	ASTM D445	15.4	**14.3**	14.3	13.8

GRAPHS

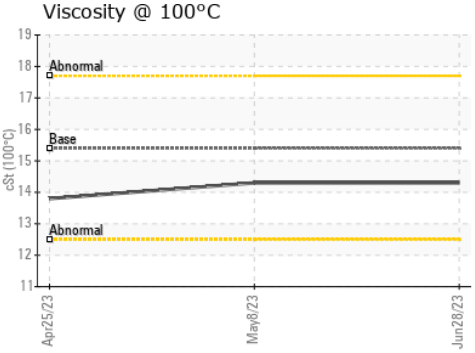
Ferrous Alloys



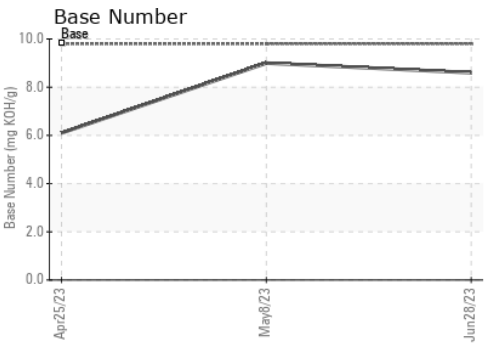
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0076885 **Received** : 03 Jul 2023
Lab Number : 05889616 **Diagnosed** : 07 Jul 2023
Unique Number : 10540099 **Diagnostician** : Jonathan Hester
Test Package : FLEET (Additional Tests: Glycol)

GFL Environmental - 411 - Kingsford HC
1001 E Blvd
Kingsford, MI
US 49802
Contact: Service Manager

To discuss this sample report, contact Customer Service at 1-800-237-1369.
** - Denotes test methods that are outside of the ISO 17025 scope of accreditation.*
Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

T:
F: